## PROJECT TITLE AND ID: A.1. Personnel Costs

General Project Description: This project represents Reclamation staff costs to perform the daily work activities required to operate the Adaptive Management Work Group. The work includes completing assignments resulting from AMWG meetings, consulting with stakeholders on a variety of AMP issues relating to the operation of Glen Canyon Dam, disseminating pertinent information to the AMWG, preparing and tracking budget expenses, and updating Reclamation's web page.

Project Goals and Objectives: The primary goal is to perform all work associated with the AMWG in a timely and efficient manner while using the funds available as prudently as possible. Secondary goals include increasing each stakeholder's awareness of significant budget and legislative issues related to the AMP, improving working relationships with the AMWG members/alternates, finding constructive ways to resolve differences, and addressing individual concerns in an open and accepting forum of discussion.

Expected Results: Personnel costs will not exceed what has been proposed in the budget and Reclamation staff will provide budget information to the AMWG on a regular basis. Completed work products will be of high quality and promptly distributed to AMWG members/alternates and interested parties. Budget reports will be presented in a format conducive to AMWG needs.

**Budget:** \$173,000

	FY-2001	FY-2002	FY-2003
Salary (includes benefits)			
Manager (0.5 FTE)	60,000	65,000	71,000
Biologist (0.25 FTE)	25,000	25,000	36,000
Management Analyst (0.63 FTE)	29,000	29,000	23,000
Website/FACA (0.5 FTE)	49,000	49,000	43,000
		:	
TOTAL	163,000	163,000	173,000

### PROJECT TITLE AND ID: A.2. AMWG Member Travel Reimbursement

<u>General Project Description:</u> This project covers the costs to reimburse AMWG members or alternates to attend regularly scheduled AMWG meetings.

Project Goals and Objectives: The primary goal for reimbursing travel expenses to AMWG members or alternates is to encourage their attendance at all meetings. Because the meetings are often scheduled in Phoenix, Arizona, many members must incur air or POV travel and by having Reclamation reimburse those and other related travel costs, e.g., hotel, per diem, rental car, etc. opportunities are increased for more members to participate in a variety of AMWG/TWG assignments. Also, because Reclamation can purchase airline tickets at the Federal Government rate, there are additional cost savings to the program.

**Expected Results:** The Glen Canyon Dam Adaptive Management Program will benefit from having all the AMWG members participate in regularly scheduled meetings. As a collective body, they address and resolve concerns associated with the operation of Glen Canyon Dam and make recommendations to the Secretary of the Interior for continued science efforts performed below the GCD.

**Budget:** \$10,000

	FY-2001	FY-2002	FY-2003
AMWG Member Travel			
Reimbursement	10,000	10,000	10,000
TOTAL	10,000	10,000	10,000

### PROJECT TITLE AND ID: A.3. Reclamation Travel

General Project Description: This project covers travel expenses Reclamation staff incur to attend AMWG and ad hoc group meetings. In order to work on AMWG/ad hoc assignments, the meetings are often held in Phoenix, Arizona. As such, Reclamation staff must make additional trips throughout the year in completion of those assignments.

<u>Project Goals and Objectives:</u> The primary goal is for Reclamation staff to be able to travel to meetings and participate in completing AMWG/TWG assignments. By doing so, the program benefits from greater interaction among its members as well as continued improvement and commitment to operating GCD in the best manner possible and obtaining the results from science work being done in the canyon.

**Expected Results:** Reclamation staff will be involved with AMWG/TWG members in completing work assignments and resolving issues that affect the AMP. They will develop better working relationships with all involved and work toward consensus on a variety of sensitive issues.

**Budget:** \$ 18,000

	FY-2001	FY-2002	FY-2003
Reclamation Staff Travel	18,000	18,000	18,000
TOTAL	18,000	18,000	18,000

# PROJECT TITLE AND ID: A.4. Facilitation Contract

General Project Description: This project represents the work assigned to one individual under contract to the Bureau of Reclamation to facilitate at Adaptive Management Work Group meetings. This person may also assist AMWG ad hoc groups in completing AMWG assignments.

<u>Project Goals and Objectives:</u> The facilitator's primary responsibility is to keep the AMWG meetings organized and help the members reach consensus on important issues. The facilitator creates a setting in which all members and the public are able to express their views.

**Results:** The facilitator will create an atmosphere in which the members and other participants at AMWG meetings feel comfortable expressing their individual viewpoints. The facilitator will bring the AMWG members to consensus on pertinent issues affecting the GCD AMP.

**Budget:** \$25,000

	FY-2001	FY-2002	FY-2003
Salary	25,000	25,000	25,000
TOTAL	25,000	25,000	25,000

# PROJECT TITLE AND ID: A.5. Other

<u>General Project Description:</u> This project represents some of the other "miscellaneous" expenses incurred in operation of the AMWG. For example:

- overnight mailings of AMWG meeting packets
- copying of reports
- purchasing meeting materials (cassette tapes, markers, paper, etc.)
- equipment (audio recording/transcribing machines)

In addition to the above, training courses are often required for staff to keep current on environmental issues, Federal Advisory Committee Act changes, computer technology improvements, etc.

Also included in this category are monetary awards given to Reclamation staff who have contributed significantly to the success of the GCD AMP.

<u>Project Goals and Objectives:</u> The primary goal is to limit spending on "other" items as much as possible. By doing so, more money can be applied to science and research.

**Expected Results:** Other expenses will be kept to a minimum in an effort to reduce the administrative portion of the AMP budget.

**Budget**: \$11,000

	FY-2001	FY-2002	FY-2003
Training	4,000	4,000	4,000
Awards	2,000	2,000	2,000
Supplies/Equipment	2,000	2,000	5,000
TOTAL	8,000	8,000	11,000

### PROJECT TITLE AND ID: B.1. Personnel Costs

This project represents Reclamation staff costs to perform the daily work activities required to operate the Technical Work Group, a subgroup of the AMWG. The work includes completing assignments resulting from TWG meetings, consulting with stakeholders on a variety of AMP issues relating to the operation of Glen Canyon Dam, disseminating pertinent information to the TWG, preparing and tracking budget expenses, and updating Reclamation's web page.

<u>Project Goals and Objectives:</u> This project represents Reclamation staff costs to perform the daily work activities required to operate the Technical Work Group. The work includes completing assignments resulting from AMWG or TWG meetings, consulting with stakeholders on a variety of AMP issues relating to the operation of Glen Canyon Dam, disseminating pertinent information to the TWG, preparing and tracking budget expenses, and updating Reclamation's web page.

Expected Results: Personnel costs will not exceed what has been proposed in the budget and Reclamation staff will provide budget information to the TWG on a regular basis. Completed work products will be promptly distributed to TWG members/alternates and interested parties.

**Budget:** \$78,000

	FY-2001	FY-2002	FY-2003
Salary (includes benefits)			
Manager	46,000	49,000	51,000
Biologist	11,000	11,000	10,000
Management Analyst	17,000	17,000	17,000
TOTAL	74,000	74,000	78,000

# PROJECT TITLE AND ID: B.2. TWG Member Travel Reimbursement

<u>General Project Description:</u> This project covers the costs to reimburse TWG members or alternates to attend regularly scheduled TWG meetings.

Project Goals and Objectives: The primary goal for reimbursing travel expenses to TWG members or alternates is to encourage their attendance at all meetings. Because the meetings are often scheduled in Phoenix, Arizona, many members must incur air or personal vehicle travel. By reimbursing those and other related travel costs, e.g., hotel, per diem, rental car, etc. opportunities are increased for more members to participate in a variety of AMWG/TWG assignments.

**Expected Results:** The Glen Canyon Dam Adaptive Management Program will benefit from having all the TWG members participate in regularly scheduled meetings. As a collective body, they address and resolve concerns associated with the operation of Glen Canyon Dam and make recommendations to the AMWG for continued research in the canyon.

**Budget:** \$10,000

	FY-2001	FY-2002	FY-2003
TWG Member Travel			
Reimbursement	10,000	10,000	10,000
TOTAL	10,000	10,000	10,000

## PROJECT TITLE AND ID: B.3. Reclamation Travel

General Project Description: This project covers travel expenses Reclamation staff incur to prepare and attend TWG meetings as well as ad hoc group meetings which result from AMWG/TWG assignments. In order to work on those assignments, the meetings are often held in Phoenix, Arizona, because it is centrally located to those entities/states represented on the AMWG/TWG. This often requires Reclamation staff to make additional trips throughout the year in completion of AMWG/TWG assignments.

<u>Project Goals and Objectives:</u> The primary goal is for Reclamation staff to be able to travel to meetings and participate in completing AMWG/TWG assignments. By doing so, the program benefits from greater interaction among its members as well as continued improvement and commitment to operating GCD in the best manner possible and for obtaining the necessary results from science work done in the canyon.

**Expected Results:** Reclamation staff will continue to be involved in meeting with AMWG/TWG members in completing work assignments and resolving issues that affect the operation of GCD. They will develop better working relationships with all involved and work toward consensus on a variety of AMP issues.

**Budget:** \$ 18,000

	FY-2001	FY-2002	FY-2003
Reclamation Travel	18,000	18,000	18,000
TOTAL	18,000	18,000	18,000

# PROJECT TITLE AND ID: B.4. TWG Chair Reimbursement

General Project Description: This project represents the work assigned to one individual under contract to the Bureau of Reclamation to act as chairperson at Technical Work Group meetings. This person may also work on AMWG/TWG ad hoc group assignments.

<u>Project Goals and Objectives:</u> The chairperson's primary responsibility is to conduct regularly scheduled TWG meetings. The chairperson also participates in ad hoc group assignments and works closely with Reclamation and GCMRC in setting meeting agendas. The chairperson follows up on TWG and ad hoc group assignments and ensures that information is shared with the members and alternates in a timely manner.

Expected Results: The chairperson creates an atmosphere in which the members and other participants at TWG meetings feel comfortable expressing their individual viewpoints. The chairperson will bring the TWG members to consensus on sensitive issues with the ultimate goal of doing what is best for the canyon and the natural resources. The chairperson will follow up on action items and make assignments as necessary to accomplish TWG objectives.

**Budget:** \$25,000

	FY-2001	FY-2002	FY-2003
Salary	25,000	25,000	25,000
			***
TOTAL	25,000	25,000	25,000

# PROJECT TITLE AND ID: B.5. Other

General Project Description: This project represents some of the other "miscellaneous" expenses incurred in operation of the TWG. For example:

- overnight mailings of TWG meeting packets
- copying of reports
- purchasing meeting materials (cassette tapes, markers, paper, etc.)
- equipment (audio recording/transcribing machines)

<u>Project Goals and Objectives:</u> The primary goal is to limit spending on "other" items as much as possible. By doing so, more money can be spent on science and research.

**Expected Results:** Other expenses will be kept to a minimum in an effort to keep within the AMP budget.

**Budget:** \$2,000

	FY-2001	FY-2002	FY-2003
Supplies	2,000	2,000	2,000
TOTAL	2.000	2,000	2.000

# PROJECT TITLE AND ID: C. SCIENCE ADVISORS

General Project Description: At this point in time it is not known what work or funds may be needed, however, the AMP will provide support for science activities in accordance with FACA rules and regulations.

# **Project Goals and Objectives:**

# **Expected Results:**

Budget: \$0

	FY-2001	FY-2002	FY-2003
Science Advisors	0	0	0
TOTAL	0	0	0

# PROJECT TITLE AND ID: D.1., D.2 Biologist, Travel

General Project Description: This project covers the costs for preparing compliance documents for AMP-proposed actions in order to comply with the Endangered Species Act, National Environmental Policy Act, and National Historic Preservation Act.

<u>Project Goals and Objectives:</u> Reclamation staff will keep informed on any changes to the ESA, NEPA, and NHPA and will consult with AMWG stakeholders to ensure proper compliance is made.

**Expected Results:** Reclamation staff will be involved in all compliance issues related to the Glen Canyon Dam Adaptive Management Program. They will utilize travel expenses to meet with the AMP stakeholders to resolve any differences.

**Budget:** \$26,000

	FY-2001	FY-2002	FY-2003
Compliance Documents			
Biologist	26,000	26,000	26,000
TOTAL	26,000	26,000	26,000

# PROJECT TITLE AND ID: E. TEMPERATURE CONTROL DEVICE

**General Project Description:** This project is covered by appropriated funds through the Bureau of Reclamation.

# PROJECT TITLE AND ID: F.1. Contract Specialist

General Project Description: This project covers the expenses for Reclamation staff to prepare and monitor contracts associated with the GCD AMP. Specifically, these contracts are for AMWG Facilitation, TWG Chairperson reimbursement, and Programmatic Agreement work.

<u>Project Goals and Objectives:</u> [Reclamation] Contract specialists will accurately apply funds spent on individual contracts to ensure costs do not exceed contract limits. They will keep other Reclamation staff informed as to those charges so accurate reporting can be made to both AMWG and TWG members.

Expected Results: Contract specialists will ensure that individual contractors are fulfilling the requirements of their contracts. They will maintain accurate records of payments made against the contracts and will keep Reclamation staff informed of discrepancies or concerns. Work will be completed on time and within the limits of the contract.

**Budget:** \$25,000

	FY-2001	FY-2002	FY-2003
Contract Administration			
Contract Specialist (0.5 FTE)	50,000	25,000	25,000
TOTAL	50,000	25,000	25,000

# PROJECT TITLE AND ID: IIA. TRIBAL CONSULTATION: Cooperative Agreements with Tribes

<u>Rationale/Problem Statement:</u> To ensure government-to-government consultation occurs between AMP tribes and AMP federal agencies.

<u>Integration</u>: The purpose of the continued funding of tribal cooperative agreements is to ensure tribal viewpoints are integrated into AMP dialog and the final recommendations that the AMP makes to the Secretary.

**Expected Products**: There is no tangible product associated with this project, except for annual reports prepared by the tribes. Rather, the product is enhanced communication and understanding of issues related to the AMP. The ultimate product should be improved recommendations being forwarded to the Secretary.

Recommended Approach: A tribal consultation plan is in preparation that will specify more details of the approach. However, the basic approach is that both tribal and agency representatives must be prepared prior to meetings by reviewing documents or researching issues or relevant viewpoints. At the meetings, all the parties must have active dialogs. Effective consultation includes both listening, explaining or discussing differing views and interests. After meetings, tribal representatives and agency representatives must report back to councils and staff or the public regarding AMP issues and concerns and recommendations.

Status: Ongoing. Continuing from the EIS.

External Project Awards: The cooperative agreements are administratively managed by Reclamation with \$75,000 in funding provided by each of the AMP agencies and supplemented by power revenues to reach the \$80,000 per tribe total.

Project Accomplishments: Maintenance of dialog, communication and government-to-government consultation.

<u>Schedule:</u> Agreements are modified on a fiscal year basis. A yearly status report is due to Reclamation at the close of the fiscal year. Copies of the reports may be distributed to AMP stakeholders upon request.

**Budget:** With five tribes or tribal groups represented (i.e. Southern Paiute Consortium), the project total cost is \$400,000. Of this, \$375,000 is from appropriations through the federal AMP agencies (USGS, BOR, NPS, BIA, USFWS).

TRIBAL PARTICIPATION	FY-2001	FY-2002	FY-2003
Cooperative Agreements with	·		
Tribes	400,000	400,000	400,000
TOTAL	400,000	400,000	400,000

# PROJECT TITLE AND ID: IIB. TRIBAL CONSULTATION: River Trip Logistical Costs to GCMRC

Rationale/Problem Statement: Power revenues have paid the costs of river trip logistics of \$15,000 per tribe since Glen Canyon Environmental Studies. The trips have been used to enable the tribes to identify resources of tribal concern, including specific properties eligible to the National Register of Historic Places. This identification effort was largely completed by the mid-1990s. Since then, the trips have been used by tribes to identify how and where dam operations are impacting identified resources or properties. Not every tribe conducts an annual river trip; rather, each tribe makes a specific proposal to the NPS as the permitting agency for the work conducted each year.

<u>Integration</u>: The river trips enable the tribes to identify impacts of dam operations on resources of tribal concern. This enables tribal views to be identified to the other AMP stakeholders and ultimately to the Secretary of the Interior.

Expected Products: The NPS requires an annual investigator report as a condition of the river trip permits. In addition, the tribes are required to report to Reclamation as part of their cooperative agreement annual report. The minimum requirement is a statement whether conditions within the river corridor were stable, improving or worsening. As a nominal variable, this can then be tracked over time to measure trends.

Recommended Approach: Reclamation takes power revenues and transfers the money to GCMRC for the direct logistical costs of the river trips. The costs of the trips have been limited to no more than \$15,000 per tribe per year. This limits the number of days and mode of transportation. The tribes are allowed to select the approach they take to the trips within this cost constrain and meeting NPS minimum tool requirements.

# Status: Ongoing.

External Project Awards: None.

Project Accomplishments: Tribes have been able to identify resources or properties and to determine where and how dam operations affect those resources. This information will be used to develop treatment or mitigation plans for the array of resources of concern.

Schedule: A report is submitted to the NPS and Reclamation as a result of any trips undertaken during the year.

**Budget:** \$15,000 per tribe for a total of \$75,000.

TRIBAL PARTICIPATION	FY-2001	FY-2002	FY-2003
River Trip Logistical Costs to			-
GCMRC			75,000
TOTAL			75,000

# PROJECT TITLE AND ID: III.1. PROGRAMMATIC AGREEMENT: NAGPRA Affiliation Work.

Rationale/Problem Statement: NAGPRA's implementing regulations state that whenever possible, Federal agencies should enter into comprehensive agreements with Indian tribes that are affiliated with specific human remains, funerary objects, sacred objects, or objects of cultural patrimony and that have claimed or are likely to claim those cultural times should they be excavated or discovered inadvertently on Federal lands. For the AMP, these agreements are an NPS responsibility within Grand and Glen Canyons; however, to ensure that it is possible to enter into a comprehensive agreement before likely archaeological data recovery begins in FY04, the AMP can help expedite this process by contracting for one of the lines of evidence for cultural affiliation. (The lines of evidence include geography, kinship, biology, archeology, anthropology, linguistics, folklore, oral tradition, history, or expert opinion.) The funds listed here would be used to contract for one or more of these lines of evidence in addition to what the NPS may prepare.

<u>Integration</u>: The major integration of this project is with the NPS's management and compliance responsibilities. The purpose of the integration is to ensure that the necessary products are completed on time for AMP and PA purposes.

**Expected Products:** This sum of money will only provide enough funds to contract for one or a few of the lines of evidence. This product will become part of a larger compiled report resulting in a comprehensive agreement and Plan of Action.

**Recommended Approach:** Issue a contract for one of the lines of evidence needed to make a determination of cultural affiliation for Glen and Grand Canyons and cultural items that are likely to be uncovered during FY04 data recovery.

Status: New project, although part of larger work efforts by NPS and Reclamation.

External Project Awards: Expect to issue a contract, requisition, or other procurement.

Project Accomplishments: Documentation of a line of evidence for cultural affiliation of the tribes with cultural items likely to be uncovered.

**Schedule:** One-year award. Product due at end of fiscal year. Larger compiled report to be prepared by federal agencies.

**Budget:** \$25,000

PROGRAMMATIC AGREEMENT	FY-2001	FY-2002	FY-2003
NAGPRA Affiliation			25,000
TOTAL			25,000

# PROJECT TITLE AND ID: III.2. PROGRAMMATIC AGREEMENT: Reclamation Administrative Costs for Programmatic Agreement

Rationale/Problem Statement: The project is to fund Reclamation's administration of the PA program. The purpose of the funds is to pay for salary, travel, and indirect costs. Reclamation's Regional Archaeologist travels to AMP meetings including PA, TWG, and AMWG. In addition to travel expenses, there is administrative time preparing for and documenting meetings. A major portion of the administrative expenses revolves around maintaining cooperative agreements with the NPS and tribes. In addition, there are contract expenses associated with the work projects listed here.

<u>Integration</u>: The costs help integrate the PA into the larger AMP.

**Expected Products:** The major product is accountability for the cooperative agreements and use of both appropriated dollars and power revenues. In addition, products include dialogs and communication at meetings.

**Recommended Approach:** Compliance with the Federal Acquisition Regulation and other accountability laws, regulations, and policies is the recommended approach.

Status: Ongoing.

External Project Awards: Cooperative agreements with tribes and NPS.

Project Accomplishments: Moving towards completion of the stipulations in the programmatic agreement.

**Schedule:** The schedule is a continuation of previous work within the fiscal year.

### **Budget:**

PROGRAMMATIC AGREEMENTS	FY-2001	FY-2002	FY-2003
Salary			49,825
TOTAL	50,000	50,000	49,825

# PROJECT TITLE AND ID: III.2. PROGRAMMATIC AGREEMENT: Mapping Actual Areas Affected by Dam Operations

Rationale/Problem Statement: New information provided by the physical science program of GCMRC has indicated that it is both theoretically feasible and cost effective to map or model actual areas within the Colorado floodplain that are affected by fluvial processes related to dam operations. A panel of geomorphologists and soil erosion experts with knowledge of the local ecosystem will be brought together in FY02 to ascertain what would be involved in such a mapping or modeling effort. If the costs and time frames they propose are reasonable, then this project will be funded in FY03 and potentially extended in FY04.

<u>Integration</u>: This will integrate physical science with the cultural resource compliance program.

**Expected Products:** A isopleth map showing the statistical probability that given areas will be impacted by dam operations of a specified flow or hydrology.

Recommended Approach: Unknown, based on recommendations from geomorphologists and soil erosion scientists convened as a panel in FY02.

Status: Contingent on advice from geomorphology/soil erosion workshop or panel.

External Project Awards: This will be contracted if determined feasible.

Project Accomplishments: This will result in a mapping of the areas actually impacted by dam operations.

Schedule: The schedule cannot be determined at this time; however, preliminary information from geomorphologists has indicated that the project could be completed in two years. This would be the first year of the two-year study.

**<u>Budget:</u>** The budget is an estimate; however, if descriptive field studies are presently costing \$200,000 it seems reasonable to project that this amount would be needed for a more refined approach.

PROGRAMMATIC AGREEMENT	FY-2001	FY-2002	FY-2003
Mapping Actual Areas Affected by Dam Operations			200,000
TOTAL			200,000

# <u>PROJECT TITLE AND ID</u>: III.2. PROGRAMMATIC AGREEMENT: NPS Monitoring Costs

Rationale/Problem Statement: The monitoring program of the Grand Canyon National Park is designed largely to provide information about which historic properties located within the area of potential effect of dam operations are affected or are likely to be adversely affected by dam operations. Minor stabilization or preservation treatments are also conducted under this program.

Glen Canyon's project is conducting nature and extent testing to determine National Register eligibility of sites in the Glen Canyon National Recreation Area.

Integration: Not applicable.

<u>Expected Products:</u> Annual reports on monitoring from Grand Canyon. Glen Canyon's products are determinations of eligibility for the National Register.

**Recommended Approach:** Ongoing monitoring and nature and extent testing following the Secretary of the Interior Standards and Guidelines for Historic Preservation and guidance of the Advisory Council on Historic Preservation.

Status: Ongoing.

External Project Awards: Cooperative agreements

Project Accomplishments: Glen Canyon is completing nature and extent testing for National Register eligibility; Grand Canyon is monitoring to determined effects of dam operations.

Schedule: The schedule is based on the fiscal year.

**<u>Budget:</u>** The monitoring costs are \$201,000 for Grand Canyon and \$27,500 for Glen Canyon.

PROGRAMMATIC AGREEMENTS	FY-2001	FY-2002	FY-2003
NPS Monitoring Costs			
Grand Canyon	221,000	201,000	201,000
Glen Canyon	27,500	27,500	27,500
TOTAL	248,500	228,500	228,500

# PROJECT TITLE AND ID: III.2. PROGRAMMATIC AGREEMENT: Contract for a Treatment and Monitoring Plan

Rationale/Problem Statement: The regulations for compliance with section 106 of the National Historic Preservation Act, coupled with the guidance of the Advisory Council on Historic Preservation, require Reclamation to consult to develop and evaluate alternatives or modifications to federal undertakings, in this case dam operations, that could avoid, minimize, or mitigate adverse effects on historic properties. The methods to avoid, minimize or mitigate effects of dam operations will be described in a treatment and monitoring plan. While many kinds of treatment are possible, in those cases where archeological data recovery is the selected form of mitigation, the plan shall include (but not be limited to):

### The research questions to be addressed:

- Why the research questions are worth addressing in the public interest;
- Why it is likely that the research questions can be addressed using data from the specific property;
- The methods used in fieldwork and analysis, with an explanation of their relevance to the research questions;
- The methods used to conservation, data management, and dissemination of data, with a justification for any unusual methods, and including a schedule;
- How the recovered materials and records will be disposed of, taking into account applicable tribal and NPS concerns and policies;
- How the PA and AMP shall be kept informed of the progress of data recovery, and how they will be afforded opportunities to participate in the data recovery efforts:
- A schedule for completing the data recovery, including analysis, reporting and disposition of materials and records.

<u>Integration</u>: The major integration will be with the physical science program due to the emphasis on geomorphological research questions and the issues of site formation processes.

**Expected Products:** A treatment and monitoring plan that will guide all activities over the next five years.

**Recommended Approach:** Contract for a treatment plan that meets the Secretary of the Interior Standards and Guidelines for Historic Preservation and guidance of the Advisory Council on Historic Preservation.

Status: New contract.

External Project Awards: Contract

Project Accomplishments: This will result in a five-year plan for resolution of adverse effects of dam operations.

Schedule: The schedule is based on the fiscal year.

**<u>Budget:</u>** The contract is estimated to cost \$200,000; however, it will be put out for bid in the Commerce Business Daily.

PROGRAMMATIC AGREEMENTS	FY-2001	FY-2002	FY-2003
Contract for a Monitoring and Treatment Plan			200,000
TOTAL			200,000

# PROJECT TITLE AND ID: A4. Experimental Flow Fund

Rationale/Problem Statement: A core concept in the Glen Canyon Dam Adaptive Management Program is experimentation to identify the cause and effect relationships between dam operations and resource impacts. Past examples include the 1996 Beach Habitat Building Flow and the 2000 Low Steady Summer Flow. Historically, we have spent about \$2 - 3 million on scientific monitoring and research activities during these experimental flows. Sufficient funding is required in the future to support these experiments. Since the future amount of funds available from power revenues is limited by the FY 2001 appropriations bill, additional appropriations have been sought to fund tribal participation and consultation, thus making available power revenues previous used to fund the tribes.

Project Goals and Objectives: The TWG Experimental Flow ad hoc group is developing an integrated program of experimentation that addresses current information needs related to sediment conservation, riparian vegetation management and Biological Opinion compliance. The experimental flow fund would finance this program. A financial carry-over account has been established in Reclamation for these funds. Funds would be accumulated each year until there is a sufficient account balance to support the scientific activities.

Status: As of December 2001, the account has a balance of \$125,000, the result of Department of the Interior appropriations offsetting power revenues for tribal participation and consultation. Additional funds will be added to the fund in FY 2002 as additional appropriations are received.

**Budget**: \$382,000

Reclamation Administrative Costs	FY-2001	FY-2002	FY-2003
Contracts	0	. 0	382,000
TOTAL	0	0	382,000

# THE GRAND CANYON MONITORING AND RESEARCH CENTER

# FISCAL YEAR 2003

# MONITORING AND RESEARCH WORK PLAN

# by

### THE GRAND CANYON MONITORING AND RESEARCH CENTER

**Lewis Coggins** Chris Flaccus Carol Fritzinger Steve Gloss Barry D. Gold F. Mark Gonzales Susan Hueftle Vickie Kieffer Ruth Lambert Michael Liszewski Serena Mankiller Theodore S. Melis Steven Mietz Barbara Ralston Bill Vernieu Stephanie Wyse Mike Yard

December 14, 2001

FINAL DRAFT

# GRAND CANYON MONITORING AND RESEARCH CENTER FY 2003 MONITORING AND RESEARCH WORK PLAN

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**OBJECTIVES** 

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